

**Notice of Allowability**

Application No.

09/925,293

Applicant(s)

HORNUNG ET AL.

Examiner

Art Unit

Jessica L. Rossi

1733

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Amendment, 9/2/05.
2. ☒ The allowed claim(s) is/are 1-42.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |   |
|---|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)  | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)           |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment                   |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material          | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance  |
|   | 9. <input checked="" type="checkbox"/> Other <u>See Continuation Sheet</u> .          |

Continuation of Attachment(s) 9. Other: Translations of FR 2612244, DE 95104 and FR 2301678.

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Withdrawn claims 15-16, 18, 24-26 and 28-39 are rejoined and are therefore being allowed in the present office action; regarding species B, please note Applicant's arguments presented in the 2<sup>nd</sup> paragraph on p. 10 of the remarks.

### **EXAMINER'S AMENDMENT**

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

3. The application has been amended as follows:

Claims 15-16, 18, 24-26 and 28-39, line 1: "withdrawn" was deleted and replaced by --original--.

4. The following is an examiner's statement of reasons for allowance:

Claim 1 is allowed as per Applicant's arguments presented in the remarks dated 9/2/05 – see p. 12, paragraphs 6-7, p. 13, paragraphs 2-3, p. 14, paragraphs 2-3, p. 14, paragraph 5 – p. 15, paragraph 2 and p. 15, paragraphs 6–7.


5. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Art Unit: 1733

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Jessica L. Rossi** whose telephone number is **571-272-1223**. The examiner can normally be reached on M-F (8:00-5:30) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom G. Dunn can be reached on 571-272-1171. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Jessica L. Rossi  
Primary Examiner  
Art Unit 1733

Translation of French Patent Document No. 2,612,244

Inventor and Applicant: Paquet Fontain, S.A.

Int. Class: E 06 B 3/64, 3/56; E04 B 2/90

Application Date: March 11, 1987

Publication Date: September 16, 1988

Priority Document: N/A

Original French Title: Vitrage isolant collé à double sécurité.

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### ADHESIVELY-BONDED DOUBLY SECURED INSULATED GLAZING UNIT

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Gluing glazing panels on the outside of frames has numerous advantages: the absence of thermal bridges, greater cutting tolerances, esthetics.

The gluing technique in known system has the drawback of being completely dependent upon only one adhesively bonded surface. Moreover, in addition to being glued to one single surface of the glazing unit, these systems comprise mechanical fasteners on the frame, which detract from the esthetic appearance.

The present invention allows the glazing unit to be doubly-secured and the mechanical fasteners will be eliminated from insulating glazing unit which comprises:

- a section *A* having a re-entering angle the panel from the outside surface of the frame forms a recess *B*;
- a double glazing unit comprising two window panes C1 and C2, with the outside window pane C1 having the outside dimensions of the frame which is made up of section *A*, with the inside glazing panel C2 having smaller dimensions than those of glazing panel C1, and this allows the same to be embedded in the surface delimited by the recess

*B* of the frame, which is made of section *A*, and with the depth of this recess being equal to the sum of the thickness of the inside wall *C2* of the double glazing unit, and with the thickness of the separating joint *E2* arranged between the two double-glazing panes and connecting the latter together by adhesive bonding.

- Three gluing joints situated, respectively, between the outside window pane *C1* and the outside face *D1* of the frame; between the outside window pane *C1* and the inside window pane *C2*; between the inside window pane *C2* and the face *D2* of the frame at the bottom of the recess, with the joints being *E1*, *E2*, *E3*.

The operation of this type of system ensures that it is doubly secured as desired: in case of breakage of *E1*, the entire assembly is supported by *E2* and *E3*. In case of breakage of *E2*, support of *C1* is ensured by *E1*, and that of *C2* by *E2*. In case of breakage of *E3*, the support of *C1* and *C2* is ensured by *E1*.

This doubly-secured arrangement allows mechanical fasteners to be eliminated because failure of one of the three adhesive bonds will not cause failure of the entire assembly or one of the elements of the glazing unit.

## CLAIMS

1. Double insulating glued glazing unit which ensures secure attachment in case of total failure of the adhesive on one of the adhesive planes, characterized in that each window pane is directly glued to the frame, with the window panes being connected to one another by adhesive bonding.

2. System as defined in Claim 1, characterized in that the dimension of the inside window pane is smaller than that of the outside window pane.

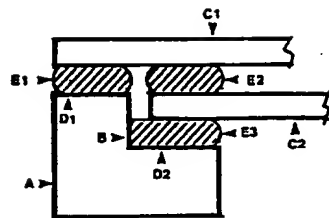
3. System as defined in Claims 1 and 2, characterized in that the section comprising the frame is provided with a recess, which allows the inside window pane to be embedded in the volume of the chassis.

4. System as defined in Claim 3, characterized in that the depth of the recess is equal to the thickness of the inside wall of the double glazing unit increased by the thickness of the separating joint arranged between the two window panes.

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Martha Witebsky - Technical Translator  
US Patent and Trademark Office - June 27, 2005

2612244





Translated from the German

FEDERAL REPUBLIC OF GERMANY  
GERMAN PATENT OFFICE

## PATENT SPECIFICATION

No. 951 040

Class 37d Group 8

IPC: E04f-----

E7005V/37d

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Inventor: Franz Eder (Austria)

Applicant: Franz Eder (Austria)

Title in German of the object of the invention: **Fenster mit zwei oder mehr in Abstand voneinander gehaltenen Scheiben**

Patented in the area of the Federal Republic of Germany from April 2, 1953

Patent application laid open to public inspection: April 26, 1956

Granting of the patent made known: September 27, 1956

The priority of the application in Austria from February 25, 1953 for claims 3 and 4 is claimed.

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### WINDOW, HAVING TWO OR MORE WINDOWPANES, KEPT AT AN INTERVAL FROM ONE ANOTHER

Windows, having two or more windowpanes of known models (double window), which windowpanes are kept at an interval from one another in a single frame by means of spacing strips, are manufactured in different ways. Rectangular L-, Z- or U-shaped spacing strips are mostly used, which have the disadvantage that they exert an impermissible pressure upon the glass panes, it is difficult to assemble them, and that they consist of a multiple number of parts. Inasmuch as T-shaped spacing strips are used, these are entirely arranged between the windowpanes, or consist of elastic material so that a sufficient strength of the framing cannot be achieved. Also, the manufacturing of composite panes, having more than two panes is mostly

difficult and intricate. The attachment of the composite panes on the window frames is also inadequate, because mostly an impermissible pressure comes into effect, or the attachment means cannot readily be released.

These imperfections are avoided as a result of the invention.

Object of the invention is a window, in which two or more glass panes, are kept in place by means of spacing strips, which enable an easy assembly of the window sash, and prevent the formation of condensation water between the panes while allowing the insertion of the glass panes without having the rigid structural elements exert a damaging pressure upon the panes. In particular, the invention provides an opportunity for the assembly of a double window without having the inner parts pinned, or otherwise being undetachable, or being detachable but with difficulty. The invention consists in that at least a leg of the spacing strips, links a pane to such an extent that this dimension of the pane thickness and of the width corresponds to a sealing part, belonging thereto. The arrangement can also be created in such a way that the free leg of a Z-shaped spacing strip retains a sealing stripe, arranged between the free leg and the glass pane, without touching the glass pane. In addition to this, it is advantageous to have a metal foil or similar arranged between the spacing strip and the frame itself. In particular, this water-repellant, or hydrophobic, foil is in such a way arranged that it covers in a sealing manner the outer side of the spacing strips and the gaps between the structural elements of the pane attachment. In the arrangement of an L-shaped spacing strip, the insulating foil is essentially also arranged, resp. folded, as an L-shaped one. The pane package is functionally kept in place on the window=s inner side by means of a strip, which engages into the frame with the help of a tongue-and-groove joint. The spacing strips are dried so that their humidity content is at the

lowest possible level, and are provided on all sides with a coating of metal-containing insulating paint.

For example, various embodiment forms of the object of the invention are diagrammatically represented in the drawings, wherein

Fig. 1 is a cross-section of a window, having two windowpanes,

Fig. 2 is a window, having three windowpanes,

Fig. 3 is a window, having two windowpanes in yet another embodiment.

The glass panes 1, which enclose the air space 2, are kept at an interval by means of the spacing strip 3. The spacing strip passes around the pane edge, and possesses a T-shaped cross-section. The reference symbols 5, 5' are sealings of elastic material, in particular rubber inserts, which - together with edges of the glass panes - are situated in the legs of the T-shape of the spacing strips. In order for these parts to be accommodated, the window sash 6 has a correspondingly fluted shape, as s in Fig. 1. A thin metal foil 10, having the width of the spacing strip, is inserted under the strip. The window parts, are fixed or established by means of the strip 7, which has a groove 8, and interacts with an elevation of the window sash in a way resembling a tongue-and-groove joint, and absorbs all lateral forces, which - where applicable - occur when the attachment screw 11 is tightened so that the pane itself remains protected from any impermissible pressure effect. The strip 7 is supported against spacing part 3, and the latter directly transmits the lateral forces onto the frame 6. The clamping in place of the glass panes 1 to the spacing strip 3 occurs now by means of the rubber insets (shims) 5, 5', which are located in the groove-shaped recesses of the parts 6 and 7, and are fixed therein. Between the glass panes 1 and the frame parts, respectively spacing parts, 6, 7, there are left wedge-shaped interstices so that

these parts also cannot press at these spots upon the glass plates. The wedge-shaped interstices are filled up with putty [glazing compound] 12 whereby the contraction of the wood-frame parts 6, 7 counteracts or inhibits the shrinking of the putty in the same direction , on account of which the shrinking of the putty does not have any disadvantageous consequences. The thin metal foil 10 is guided around the outer side of the spacing strips 3, and is superimposed in an overlapping manner at the butt joint. The metal foil prevents the penetration of moisture in the direction of the spacing strip, and therewith, to the air space [air chamber] 2. Moreover, the spacing strips are dried so that the content of the moisture becomes as low as possible, and are advantageously provided on all sides with a coating of metal-containing insulating paint. The interstice between the glass panes 1 is filled with a dry, respectively dried, gaseous medium, in particular air. All these measures prevent the formation of condensation water between the glass panes because neither moisture is present inside the panes nor can it also penetrate therein from outside. In order to also keep away moisture from the lower side of the window sash, a water outlet channel 15, having a discharge [drain] pipe 15 [sic] is mounted on the lower frame side bar 13. The additional fold 16 facilitates this effect.

In the exemplified embodiment, depicted in Fig. 2, three panes are arranged one after another. What has been stated in the exemplified embodiment , depicted in Fig. 1, is also accordingly valid in this case. The metal foil passes above entire spacing strips 3. While the outer spacing strips are T-shaped, the inner spacing strips have a Z-like cross-section. The fixing of the panes takes place without any pressure being exerted by solid parts upon the glass by means of the locking strip 7, attached by groove-and-tongue joint. For the purposes of a sealing fixing of all window parts, no nail is required by those parts, which are in the interior of the arrangement,

but only the screw 11 on the side of the chamber is required so that no sealing agents are required on the outside for the fixing of the window. The windows can also be manufactured in such a way that the parts 6 can be created as an insert frame, into which the window parts perfectly fit, and can be sealed by strip 7, whereupon the windows, which have thus been completed, are inserted in ready-made state into the actual window frames. This provides the advantage that the windows can be completed in the workshops, and on the construction site itself only the insertion into the window frames can take place.

In the exemplified embodiment, depicted in Fig. 3, the panes 1 are kept at an interval from one another by means of an L-shaped spacing strip. The web of the L-shape is situated between the window panes while the cross-beam underpins the inner pane. The panes are kept elastic by means of sealings in the window frame. The foil of water-repellent material 10 is arranged in such a way, that the outer side of the spacing strips and the gaps [joints] between the structural elements of the pane attachment are overlapped or covered in a sealing manner. The foil extends from the outer sealing up to the inner side of the inner pane whereby it surrounds the inner sealing. As a result of this, the foil appears as arranged in L-like shape. The spacing strips are dried so that their content of moisture is as low as possible, and, advantageously, are provided on all sides with a coat of metal-containing insulating paint. Certainly, the arrangement of an L-shaped, folded foil, in accordance with Fig. 3, can *mutatis mutandis* find an application in the examples depicted in Figs. 1 and 2. Concurrently, the foil could also surround the outer sealing, as in the case of the inner sealing. For the elastic sealings, rubber can advantageously be used. As a result of the invention, a pressure-free mounting of the panes and a reliable insulation against moisture is achieved, which could bring about a cloudiness or turbidity of the panes in the

intermediate chamber [interstice] 2. Also, in the a complete sealing is provided in the area oaf the frame corners.

The window in accordance with the invention has all advantages of the conventional coupled or composite windows , used until recently, but precludes the formation of condensation water between the window panes. A formation of condensation water between the panes was found to be very uncomfortable and burdensome due to the turbidity on the windowpanes, brought about by the said condensation water, because until recently the turbidity could not be eliminated. The sealing strip 7 provides an opportunity for an easy disengagement of all parts, pressure-free installation and a complete interception and deflection of the wind pressure. The rubber sealings and the foil are by all means arranged in such a way that the spacing strips do not come in contact at any particular spot with the rest of the wooden parts of the frame system, and they do not also come in contact by way of small air bridges.

## PATENT CLAIMS

1. Window, having two or more windowpanes which windowpanes are kept at an interval from one another in a single frame by mens of strips of T-, Z- and/or L-shaped cross-section, characterized in that at least a leg of the strip underpins a windowpane to such an extent that this measure corresponds to the pane thickness and to the width of a sealing strip, belonging thereto.
2. Window as claimed in claim 1, having Z-shaped strips, characterized in that the free leg of the Z-shaped strip retains in place a sealing strip, arranged between strip web and glass pane.
3. Window as claimed in claim 1 or 2, characterized in that a metal foil or similar is

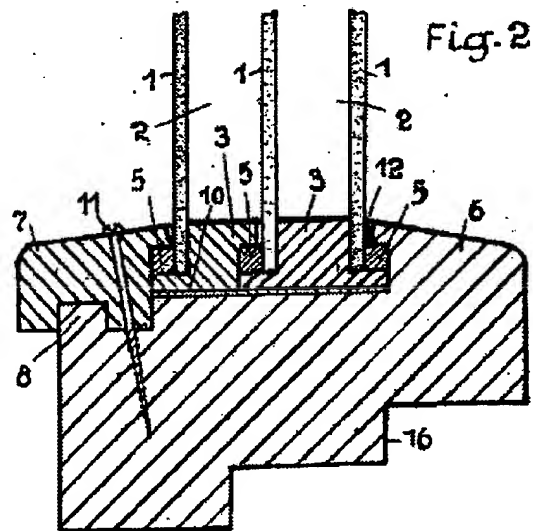
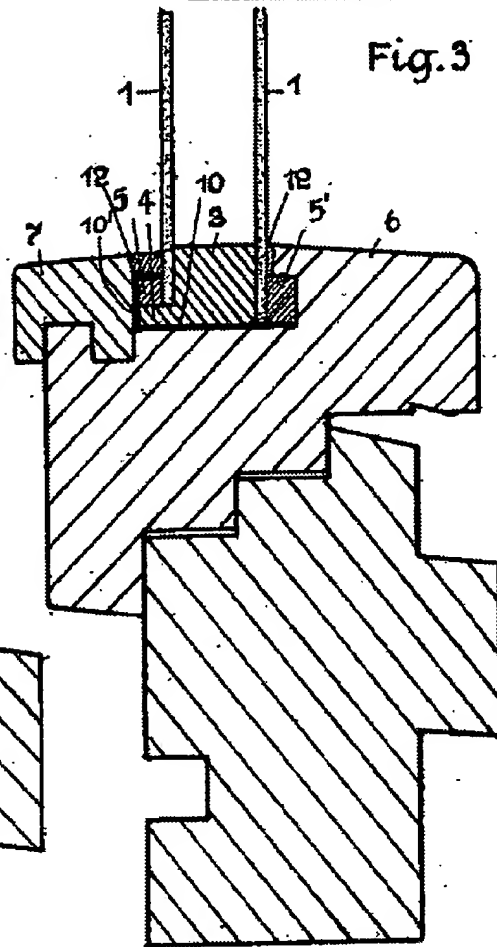
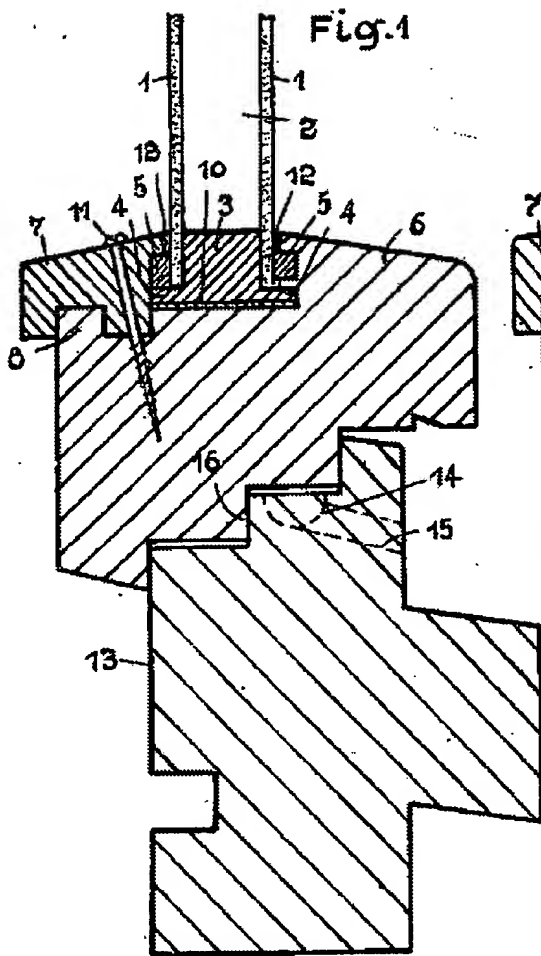
arranged between the spacing strips and the window frame.

4. Window as claimed in one of the preceding claims, characterized in that the foil of water-repellent material covers the outer side of the spacing strips and the gaps [joints] between the structural elements of the windowpane attachments, and, in doing so, functionally surrounds the elastic sealing, resp. sealings.

5. Window as claimed in one of the preceding claims, characterized in that the windowpane package is kept in place on the window inner side by means of a strip, which engages in a tongue-and-groove manner into the window frame.

6. Window as claimed in one of the preceding claims, characterized in that the spacing strips are dried so that the content of moisture in them is reduced to the minimal possible extent, and they are advantageously provided on all sides with a coat of metal-containing insulation paint.

Translated by John M Koytcheff, M.Sc. (Civil Engrg. & Water Treatment Engrg.);  
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June 21, 2005





Translation of French Patent Document No. 2,301,678

Inventor: N/A

Applicant: Roger Piot

Int. Class: E06 B 7/23, 3/64

Application Date: February 19, 1975

Publication Date: September 17, 1976, B.O.P.I. "Listes" No. 38

Priority Document: N/A

Original French Title: Joint d'étanchéité pour vitrage multiple.

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### SEALED JOINT FOR DOUBLE GLAZING UNIT

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The present invention relates to double glazing units for the purpose of thermal and sound insulation of glazing panels.

It is known that glazing units having double glazed panels are made of at least two glazing elements which are separated by spacers and supported by frames that extend to the periphery and limit, with the help of a sealed joint, a sealed intermediate space which is filled with dry air.

Such glazing units may be manufactured in a factory and are usually framed by two metal sections, with the sealed joint consisting of pastes or polymerized resinous plastics to ensure a dependable seal.

Other double glazing units are made by adding at least one additional glazing panel on a first existing glazing panel with the aid of an inserted section which must be fixed to the frame of the first glazing panel and which allows to compress a sealed plastic joint between the additional glazing panel and the frame or the periphery of the first glazing panel itself.

In both cases, the sealed joint delimits the sealed space which is filled with dry air and comprises, at least localized, a desiccant which is in contact with the entrapped dry air.

The first type of glazing panels delivers good results with respect to thermal and sound insulation but they are only suitable for window frames whose rabbets are sufficiently deep, i.e., in practice, these are frames especially designed for this type of usage.

Glazing units of the aforementioned second type are suitable for any type of frame, but in order to be installed they require the sections and joints to be cut, fastening means which result in long and not-so-easy operations, and they are relatively expensive. Moreover, the results are not satisfactory unless the sections are non-deformable, and this results in large dimensions and multiple attachment points.

It is the object of the invention to provide means for manufacturing multiple glazing units, which are reliable, inexpensive, and easy to install.

Another goal of the invention is to provide a process for insulating glazed panels.

The object of the invention is a sealed joint used in the construction of multiple glazed panels, especially one based on a simple glazing pane, characterized in that said joint comprises a sealed elastic core in the form of a strip having a square cross section whose two opposite faces are coated, at least localized, with an adhesive contact substance, with said core also comprising desiccation agents.

In the glazing unit according to the invention, the glazed elements are kept at a desired interval by means of the inventive sealed joint, which simultaneously serve as

spacers and attachment means, and which also ensure the desiccation of the blanket of air enclosed therein.

The thermal and sound insulation process for the inventive glazing panels is characterized in that a sealed joint is applied to the periphery of a first glazing panel, with the desiccant being oriented toward the center of the glazing panel, and in that the additional glazing panel is applied after the air, which constitutes the pocket of entrapped air, is heated.

Another object of the invention is to realize a glazing panel with the aid of a sealed joint in accordance with the invention.

An embodiment of the invention is described below and illustrated in the drawing in which:

- Figure 1 is a schematic cross-sectional view of the right section of a joint in accordance with the invention;
- Figure 2 is a view of a variant of the embodiment;
- Figures 3a and 3b are views of other variants of the embodiment;
- Figure 4 is a partial schematic view of a multiple glazed panel in accordance with the invention;
- Figure 5a is a view of another variant of the joint;
- Figure 5b is a partial schematic view of a multiple glazed panel made with the joint in Figure 5a.

In Figure 1, the sealed joint in accordance with the invention is made of a central, flexible core such as rubber, polyvinyl polyethylene, polyurethane or any other suitable closed-cell material. The core is made of an elastic strip having a square cross section,

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and the opposite faces 2 and 3 are coated with a layer of a non-hygrometric adhesive substance such as an acrylic elastomer, silicone, or any other type of adhesive 4 having the properties required of a contact adhesive - the dimension L determines the spacing of the two glazing panels, for example, 6 mm - with the face 6 of the central core 1 adjacent to faces 2 and 3 being covered with a desiccant 7, which may be a product known by the name of silicagel - with the adhesive layer 4 of the face 2 being covered with a removable protective film.

The joint is normally rolled up onto itself in order to form a roll of a predetermined length, which is preferably vacuum wrapped for storage and for commerce.

In accordance with Figure 2, the central core 1 of the sealed joint is, for example, polyethylene. It comprises a longitudinal recess, which communicates with face 6 adjacent to two adhesive faces 2 and 3 by way of small openings 10 which are spaced at regular intervals along the joint. The desiccant 7 is contained on the inside of the recess 9. In the variant, the face 11 adjacent to the two adhesive faces 2 and 3 and opposite face 6, is also equipped with a layer of an adhesive 4 - with the adhesive layers of at least one of faces 2 and 3 and that of face 11 being coated with a removable protective film, which is not illustrated.

One embodiment of the invention, illustrated in Figure 3a, provides for the central core to be extended by a side edge 12 which forms a cover strip for the additional glazing panel illustrated by the dashed line. In order to simplify the manufacturing process, the edge is deformable, Figure 3b.

The adhesive face 2 of the joint is applied in accordance with Figure 4 on the periphery of the first glazing panel 13 arranged in the direct vicinity of the frame. The natural flexibility of the joint allows directional changes to be made in the corners of the glazing panel. However, it may be preferable to cut and glue the portions to be joined in order to ensure the continuity of the joint.

The process is the following: the additional glazing panel 14 is placed with its lower side on the face 3 of the sealed joint, and with its upper portion it is brought into the proximity of the face of the opposite joint. Prior to placing the entire additional glazing panel, hot air is blown into the intermediate space separating the two glazing elements until the temperature rises. Then the additional glazing panel is placed squarely on the entire surface of the sealed joint. Cooling the dry air entrapped in the intermediate space separates the two glazing panels and results in low pressure, which favors good adhesion. An annular molding 15 may be added.

A variant of the invention illustrated in Figure 5a provides for a thin sealed joint - the central core 1 is thin, the face 2 is coated with an adhesive substance along two side strips 2<sub>1</sub> and 2<sub>2</sub>, with each occupying approximately one third of the thickness - face 3 is completely covered with adhesive substance - the desiccant 7 is arranged in accordance with a central strip 23.

This embodiment allows constructing a multiple glazing unit, Figure 5b, by being placed on a frame comprising a spline 16, which forms a spacer for the glazing panel.

It will be understood that the invention may be made in different colors and dimensions.

## CLAIMS

1. Sealed joint for making a multiple glazing unit, characterized in that said joint comprises a watertight elastic core in the form of a strip having a square cross section whose two opposite faces are coated, at least localized, with an adhesive substance, with said core also comprising a desiccant.

2. Sealed joint as defined in claim 1, characterized in that the desiccation means are a layer of desiccant arranged on an surface adjacent to the adhesive faces.

3. Joint as defined in Claim 1, characterized in that the desiccation means are a longitudinal strip of desiccating material arranged in the center portion of one of the two adhesive faces.

4. Joint as defined in Claim 1, characterized in that the desiccation means are a desiccating material contained on the inside of a recess arranged in the core which communicates with the face adjacent to two adhesive faces by way of small openings.

5. Joint as defined in one of the preceding claims, characterized in that said joint comprises a side edge.

6. Joint as defined in one of the preceding claims, characterized in that said edge is deformable.

7. Thermal and sound insulation of a glazing unit, characterized in that a sealed joint as defined in one of claims 1 to 6 is placed on the periphery of a first glazing panel, with the desiccation means being oriented toward the center of the glazing panel, and in that an additional glazing panel is applied after having been heated with air that constitutes the pocket of entrapped air.

8. Multiple glazing unit comprises at least two glazing elements separated by an intermediate space which is filled with dry air, characterized in that the glazing elements are affixed through contact with a sealed joint as defined in one of Claims 1 to 6.

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Martha Witebsky - Technical Translator  
US Patent and Trademark Office - June 27, 2005

Pl. unique

